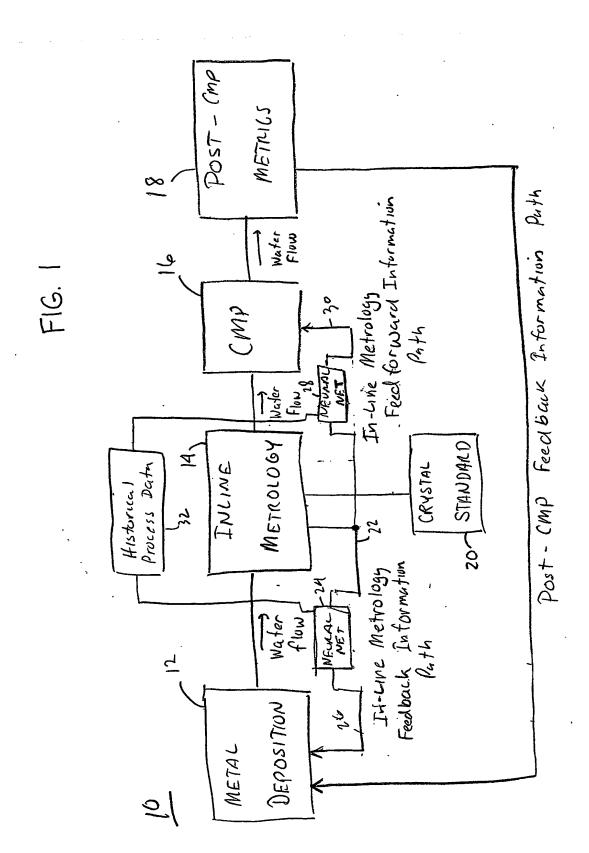
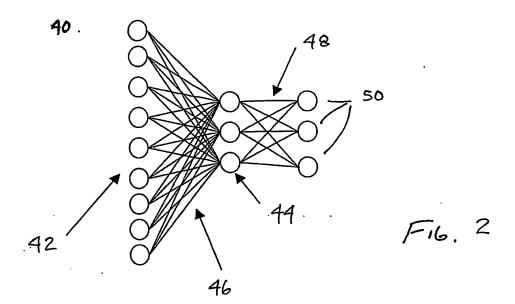
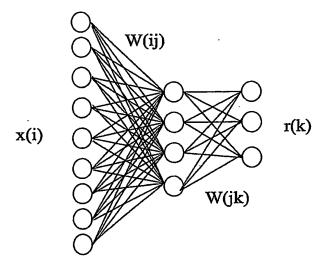
PCT/US03/07264



\$0/50 Si





F16. 3

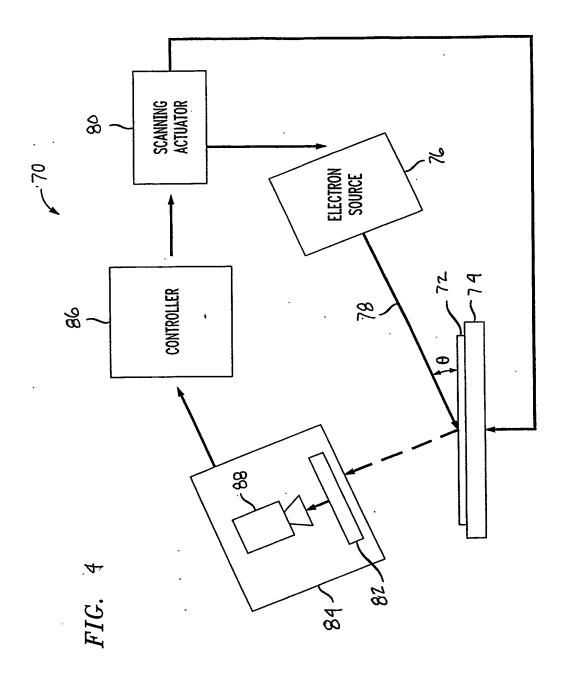


FIG.~~5

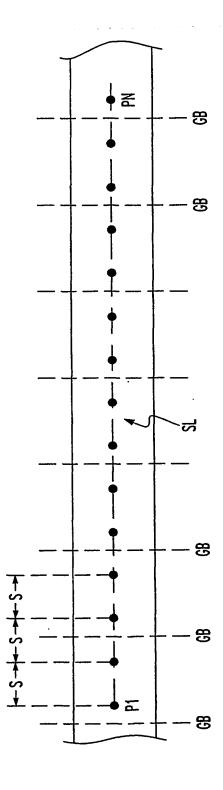
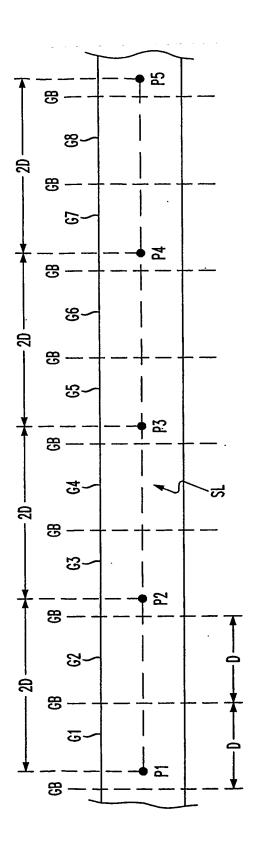
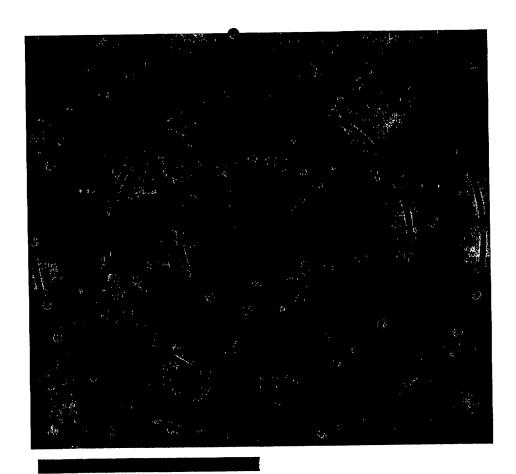


FIG. 6 A

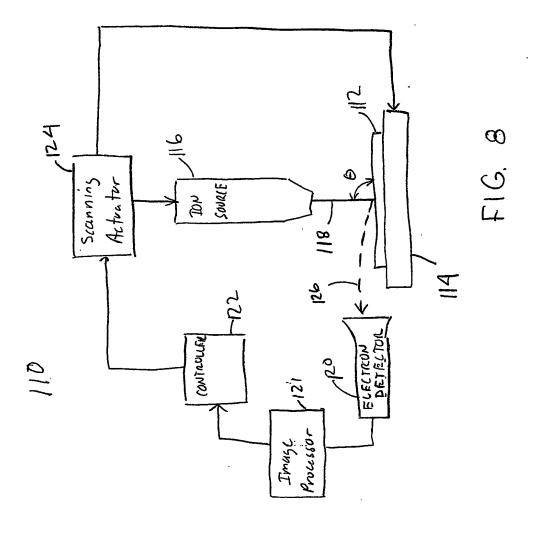


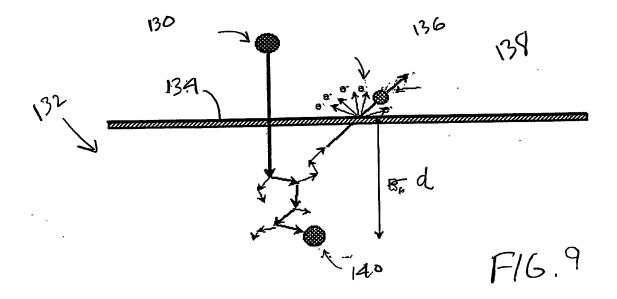


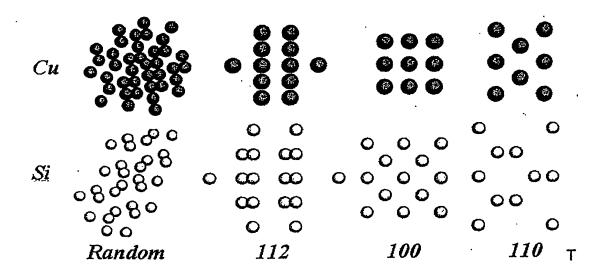
 $7.00 \ \mu m = 35 \ steps$

FIG. 6B

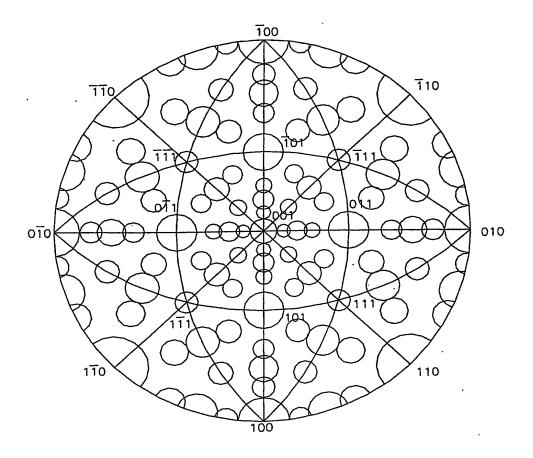
FIG. 7 START GENERATE 92-**ELECTRON BEAM** CONTROL MOVEMENT BETWEEN BEAM AND SAMPLE PROCESS IMAGE **COMPARE** 98 **CRYSTALLOGRAPHIC GRAIN ORIENTATIONS** DETERMINE AVERAGE 100 CRYSTALLOGRAPHIC **GRAIN ORIENTATIONS** 102 NUMBER OF YES PROCESSED IMAGES EQUAL TO 2 ? NO DETERMINE VARIANCE OF AVERAGE 104. **GRAIN ORIENTATIONS** DOES VARIANCE 106 APPROACH NO (OR EQUAL TO) PREDETERMINED VALUE ? YES 108-TERMINATE SCANNING



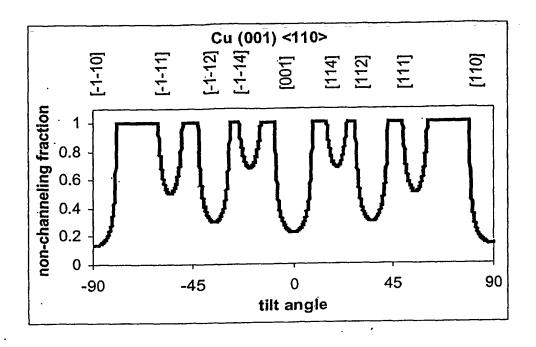




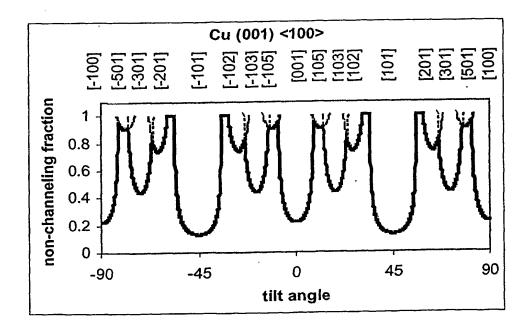
F16, 10



F16, 11



F16,12A



F16.12B

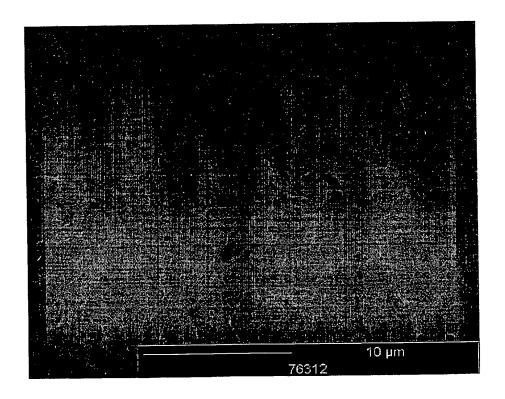
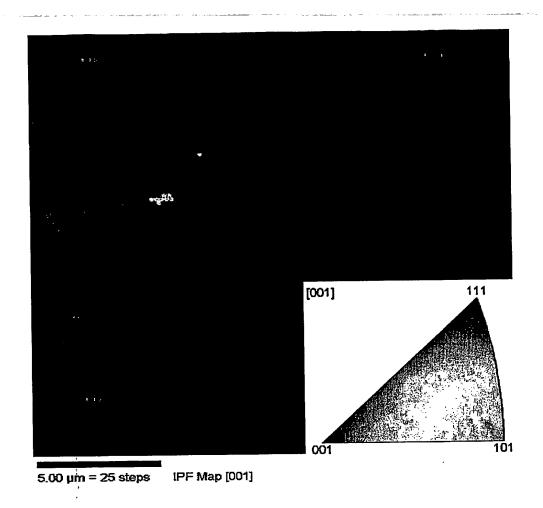
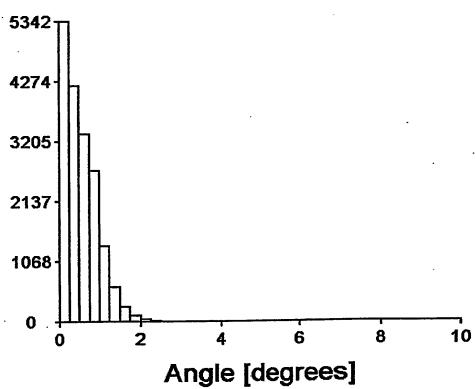


FIG. 13A



F16. 13B





F16,14

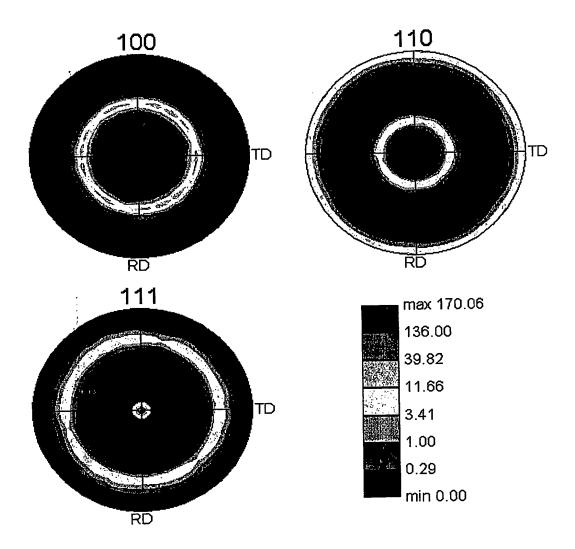


Fig. 15

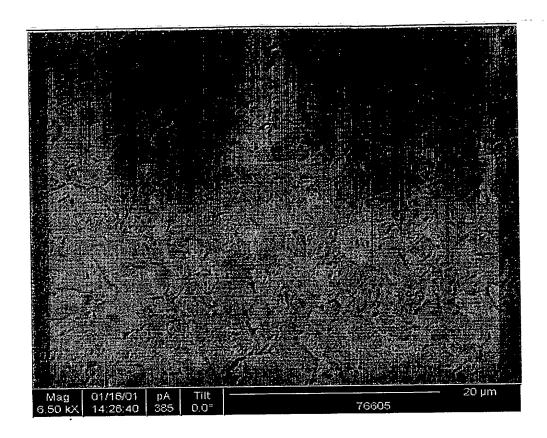


FIG. 16A

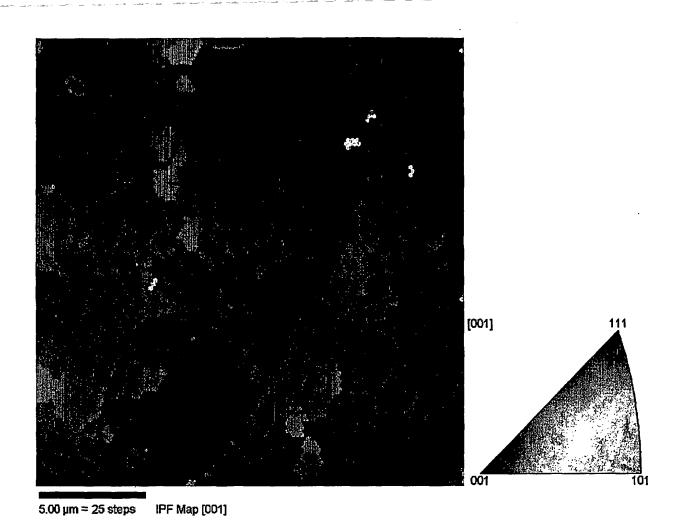
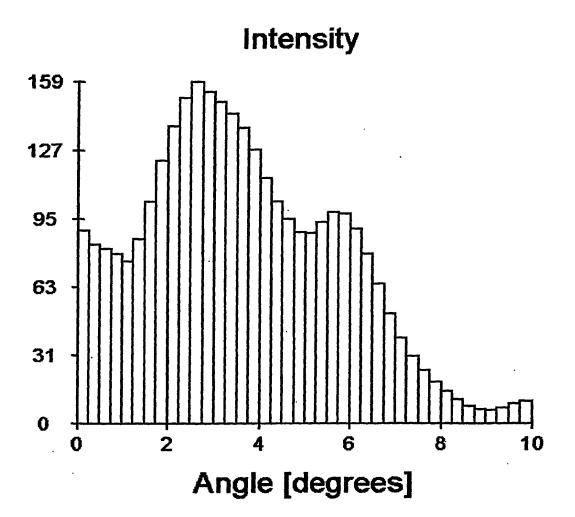


FIG. 16B



F16.

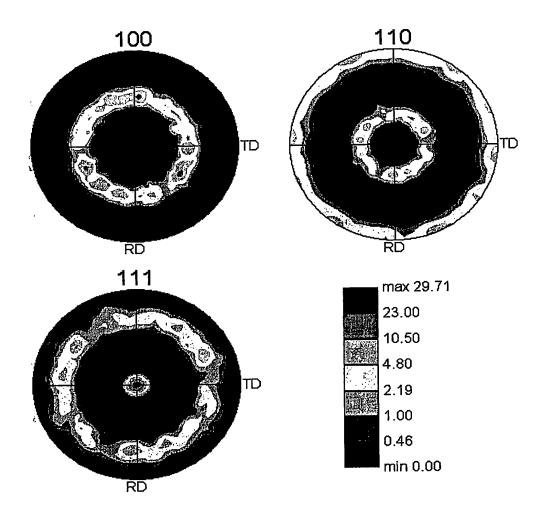
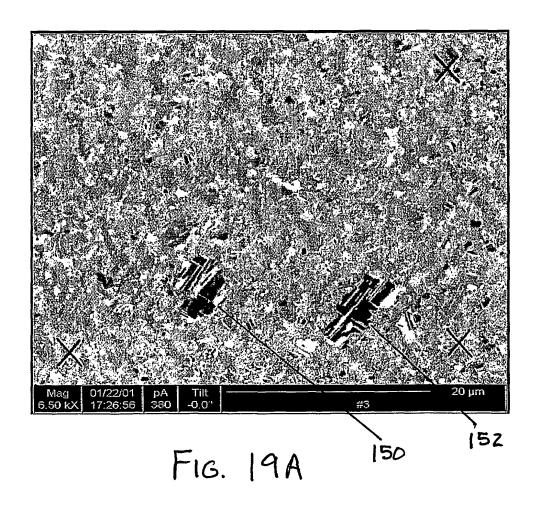


FIG. 18



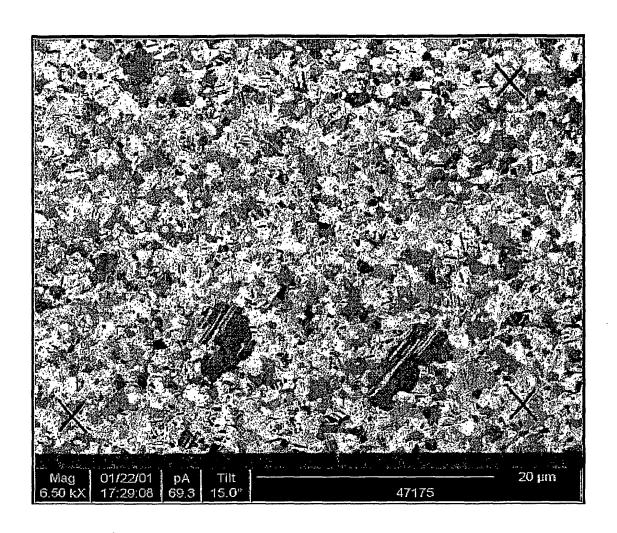
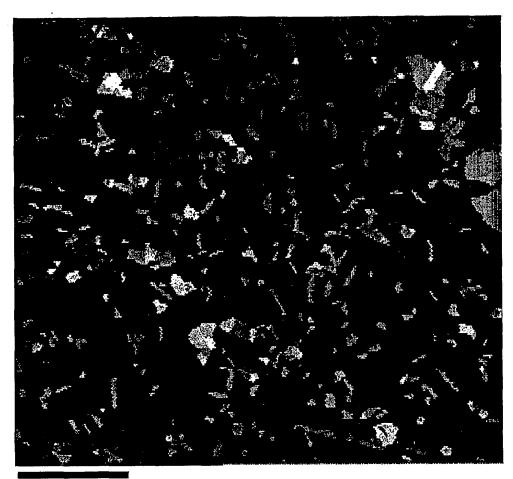


FIG. 19B



4.50 µm = 45 steps IPF Map [001]

FIG. 20

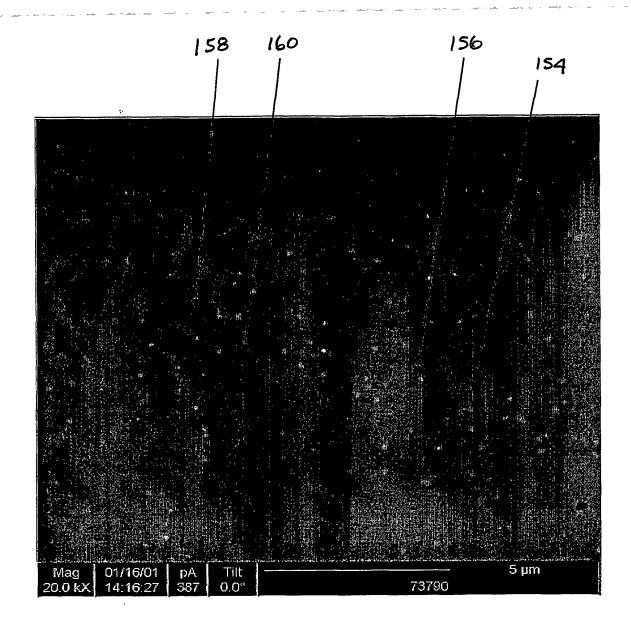


FIG. 21

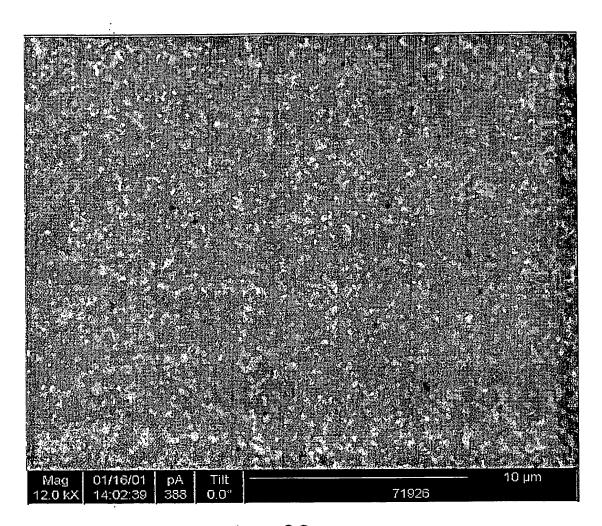
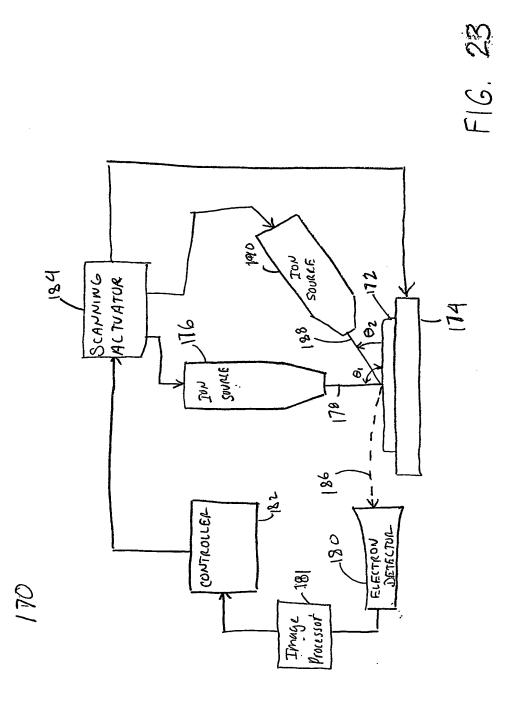
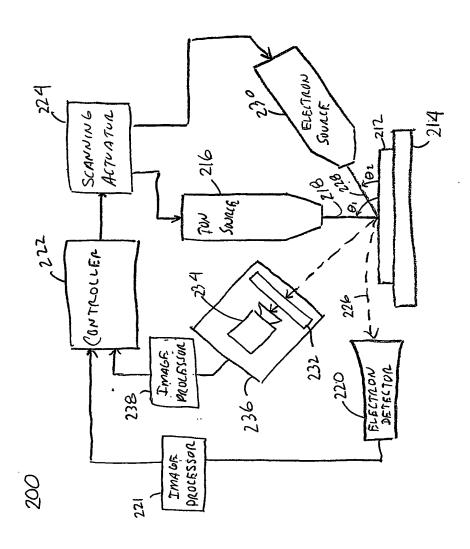
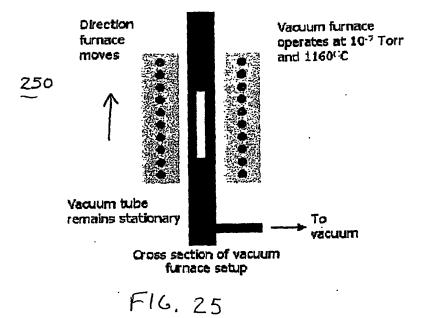


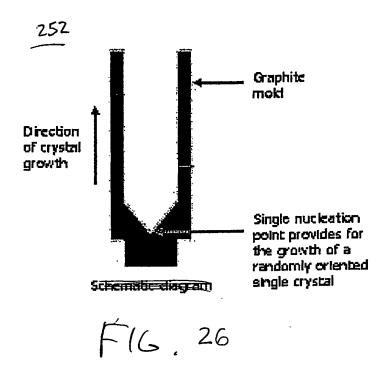
FIG. 22

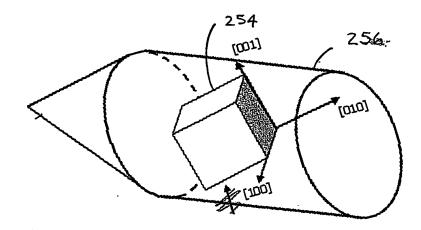


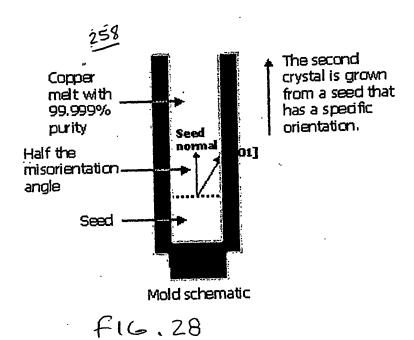
-16. 24











Seed cut from first single crystal...
(direction of crystal growth)

260

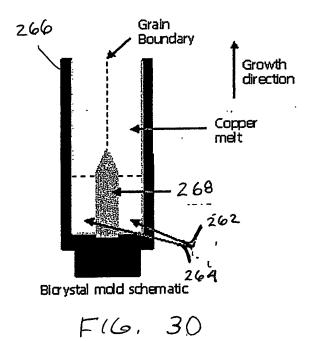
Out in half and rot at e 180° grain boundary

Angle is half the misorientation angle

Directions normal to faces of crystal

Sum of the angles is the total misorientation angle.

FIG. 29



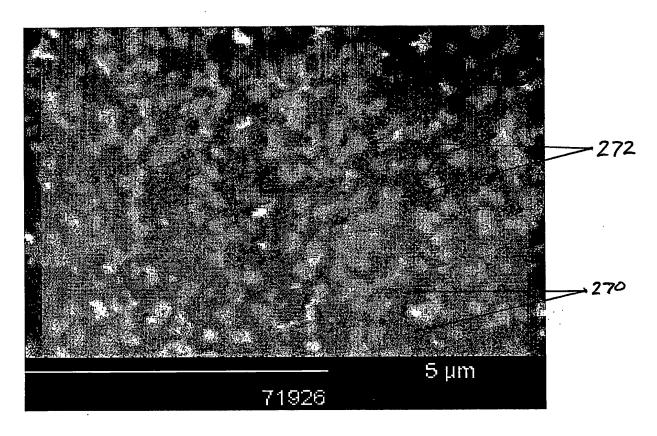
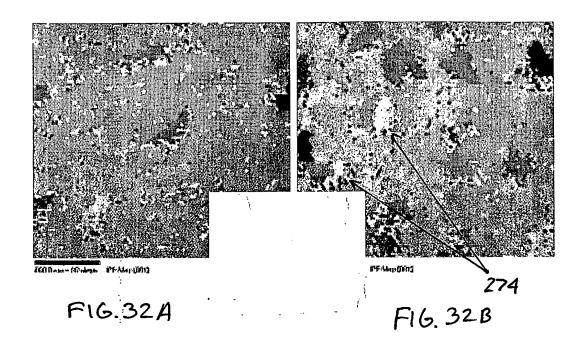
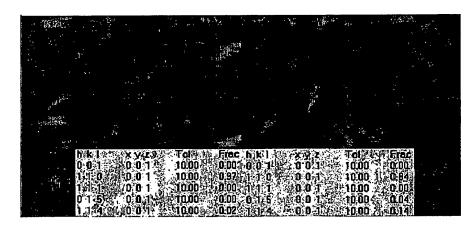


FIG. 31





F16. 33A

F16. 33B

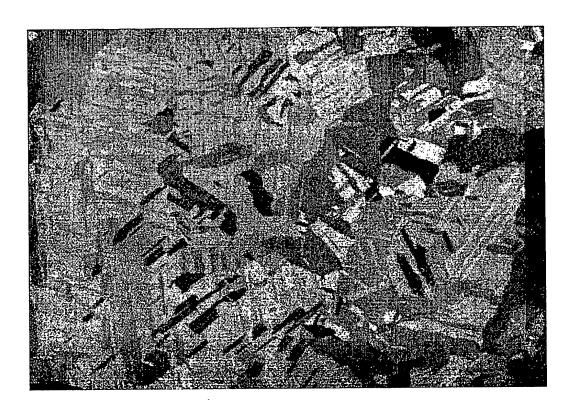
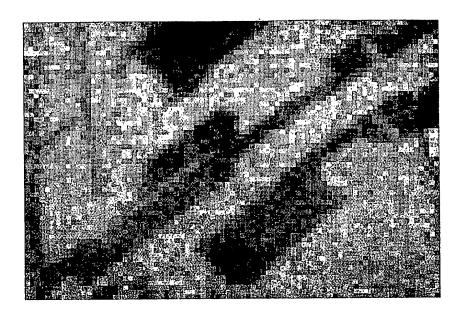


FIG. 34



F16. 35

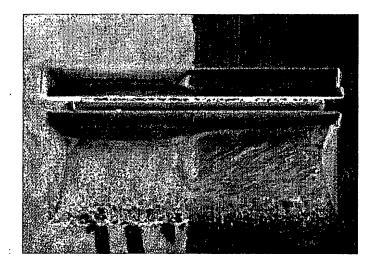
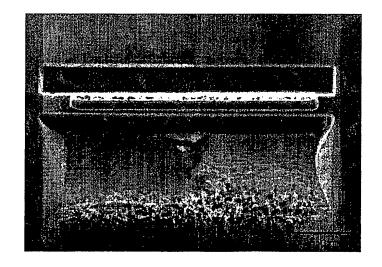


FIG. 36 A



F16. 36B